

App. No. 10/668,823
Amendment C
Page 2

Amendments to the Claims

Claim 1 (Currently amended): A substantially vertical cross-section of a fuselage for an airplane comprising:
a first side of the cross-section having a first curvature;
and
a second side of the cross-section having a second curvature;
wherein a vertical axis passing through a top of the fuselage separates the first side of the cross-section from the second side of the cross-section, wherein the first side of the cross-section is laterally situated on one side of the vertical axis and the second side of the cross-section is laterally situated on an opposite side of the vertical axis;
wherein the first curvature is different from the second curvature.

Claim 2 (Original): The fuselage of claim 1 further comprising:
a first width corresponding to the first side of the cross-section; and
a second width corresponding to the second side of the cross-section.

Claim 3 (Original): The fuselage of claim 2 further comprising:
a storage compartment coupled to the first side of the cross-section; and
a seat inside the cross-section.

App. No. 10/668,823
Amendment C
Page 3

Claim 4 (Original): The fuselage of claim 3 further comprising an aisle in between the seat and the storage compartment.

Claim 5 (Original): The fuselage of claim 4 wherein the first curvature is an elliptical curve.

Claim 6 (Original): The fuselage of claim 4 wherein the second curvature is an elliptical curve.

Claim 7 (Withdrawn): The fuselage of claim 4 wherein the first curvature is a circular curve.

Claim 8 (Withdrawn): The fuselage of claim 4 wherein the second curvature is a circular curve.

Claim 9 (Withdrawn): The fuselage of claim 4 wherein the first curvature is a digitally specified curve.

Claim 10 (Withdrawn): The fuselage of claim 4 wherein the second curvature is a digitally specified curve.

Claim 11 (Withdrawn): The fuselage of claim 4 wherein the first curvature is a conic curve.

Claim 12 (Withdrawn): The fuselage of claim 4 wherein the second curvature is a conic curve.

App. No. 10/668,823
Amendment C
Page 4

Claim 13 (Original): The fuselage of claim 1 further comprising:

an aisle inside of the cross-section; and
a seat inside of the cross-section.

Claim 14 (Canceled)

Claim 15 (Original): The fuselage of claim 1 wherein the fuselage is designed to travel at supersonic speed.

Claim 16 (Original): The fuselage of claim 15 wherein the fuselage is designed to travel over land with a reduced sonic boom signature.

Claim 17 (Original): The fuselage of claim 1 wherein the first curvature is a curvature selected from the group consisting of elliptical, conic, circular and digitally specified.

Claim 18 (Original): The fuselage of claim 17 wherein the second curvature is a curvature selected from the group consisting of elliptical, conic, circular and digitally specified.

Claim 19 (Original): The fuselage of claim 1 further comprising a fuselage height; wherein the cross-sectional area of the fuselage is reduced relative to the smallest circular cross-sectional area of a second fuselage with the same fuselage height.

App. No. 10/668,823
Amendment C
Page 5

Claim 20 (Original): The fuselage of claim 1 further comprising a aisle height; wherein the cross-sectional area of the fuselage is reduced relative to the smallest circular cross-sectional area of a second fuselage with the same aisle height.

Claim 21 (Original): The fuselage of claim 1 wherein the cross-sectional area of the fuselage is reduced relative to the cross-sectional area of a second fuselage with each half having two equal curvatures.

Claim 22 (Original): The fuselage of claim 1 further comprising:

- a height;
- a first width corresponding to the first curvature; and
- a second width corresponding to the second curvature.

Claim 23 (Original): The fuselage of claim 22 wherein the cross-sectional area of the fuselage is reduced relative to the smallest elliptical cross-sectional area of a second fuselage having a second fuselage height equal the height and a second fuselage width of double the greater of the first width and the second width.

Claim 24 (Original): The fuselage of claim 1 further comprising:

- a height;
 - a first width corresponding to the first curvature; and
 - a second width corresponding to the second curvature;
- wherein the height is greater than the sum of the first width and the second width.

App. No. 10/668,823
Amendment C
Page 6

Claim 25 (Original): The fuselage of claim 24 wherein the first width is less than the second width.

Claim 26 (Currently amended): A cross section of an airplane comprising:

- a first side of a fuselage with a first curvature;
- a second side of the fuselage with a second curvature which is coupled to the first side of the fuselage;
- a storage compartment within the fuselage;
- a seat within the fuselage; and
- an aisle within the fuselage;

wherein a vertical axis passing through a top of the fuselage separates the first side of the fuselage from the second side of the fuselage, wherein the first side of the fuselage is laterally situated on one side of the vertical axis and the second side of the fuselage is laterally situated on an opposite side of the vertical axis;

wherein the first curvature is different from the second curvature.

Claim 27 (Original): The cross section of the airplane of claim 26 wherein the aisle is between the seat and the storage compartment.

Claim 28 (Original): The cross section of the airplane of claim 26 further comprising:

- a first width corresponding to the first side of the fuselage; and

App. No. 10/668,823
Amendment C
Page 7

a second width corresponding to the second side of the fuselage.

Claim 29 (Original): The cross section of the airplane of claim 28 wherein the first curvature is an elliptical curvature; wherein the second curvature is an elliptical curvature; and wherein the second width is greater than the first width.

Claim 30 (Original): The cross section of the airplane of claim 29 wherein the first width is between 20 and 30 inches; and wherein the second width is between 37.65 and 47.65 inches.

Claim 31 (Original): The cross section of the airplane of claim 30 wherein the fuselage has a height of between 87 and 97 inches; wherein the cross sectional area of the fuselage is between 4650 and 5150 square inches.

Claim 32 (Original): The cross section of the airplane of claim 26 wherein the first curvature is an elliptical curve.

Claim 33 (Original): The cross section of the airplane of claim 26 wherein the second curvature is an elliptical curve.

Claim 34 (Withdrawn): The cross section of the airplane of claim 26 wherein the first curvature is a circular curve.

Claim 35 (Withdrawn): The cross section of the airplane of claim 26 wherein the second curvature is a circular curve.

App. No. 10/668,823
Amendment C
Page 8

Claim 36 (Withdrawn): The cross section of the airplane of claim 26 wherein the first curvature is a digitally specified curve.

Claim 37 (Withdrawn): The cross section of the airplane of claim 26 wherein the second curvature is a digitally specified curve.

Claim 38 (Withdrawn): The cross section of the airplane of claim 26 wherein the first curvature is a conic curve.

Claim 39 (Withdrawn): The cross section of the airplane of claim 26 wherein the second curvature is a conic curve.

Claim 40 (Original): The cross section of the airplane of claim 26 wherein the storage compartment and the seat are on the same side of the aisle.

Claims 41-43 (Canceled)

Claim 44 (Currently amended): The cross section of the airplane of claim 26 further comprising a window ~~widow~~ in the fuselage.

Claim 45 (Original): The cross section of the airplane of claim 26 further comprising a door in the fuselage.

Claim 46 (Original): The cross section of the airplane of claim 26 further comprising a fuselage height corresponding to

App. No. 10/668,823

Amendment C

Page 9

the first side of the fuselage and the second side of the fuselage;

wherein the cross sectional area of the fuselage is reduced relative to the smallest circular cross-sectional area of a second fuselage with the same fuselage height.

Claim 47 (Original): The cross section of the airplane of claim 46 wherein the sonic boom signature of the fuselage has been reduced relative to the sonic boom signature of the second fuselage.

Claim 48 (Canceled)

Claim 49 (Canceled)

Claim 50 (Original): The fuselage of claim 26 wherein the cross-sectional area of the fuselage is reduced relative to the cross-sectional area of a second fuselage with each half of the second fuselage having two equal cross-sectional curvatures.

Claim 51 (Original): The fuselage of claim 50 wherein the sonic boom signature of the fuselage has been reduced relative to the sonic boom signature of the second fuselage.

Claims 52-63 (Canceled)